

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	Philyaw et al.	
Application Serial No.:	09/382,374	Confirmation No.: 5135
Filing Date:	August 24, 1999	
Group:	3622	
Examiner:	Arthur D. Duran	
Title:	METHOD AND APPARATUS FOR ALLOWING A BROADCAST TO REMOTELY CONTROL A COMPUTER	

BRIEF ON APPEAL

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Appendices:

- A. U.S. Patent No. 5,708,478 to Tognazzini.
- B. U.S. Patent No. 6,029,045 to Picco.
- C. U.S. Patent No. 5,887,243 to Harvey.
- D. U.S. Patent No. 5,133,011 to McKiel.
- E. *KSR International Co. v. Teleflex Inc., et al.*, 127 S. Ct. 1727 (2007).

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BRIEF ON APPEAL

Serial No.: 09/382,374

Atty. Dkt. No.: PHLY-24,736

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: **Philyaw et al.**

Application Serial No.: **09/382,374**

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Filing Date: **August 24, 1999**

Group: **3622**

Examiner: **Arthur D. Duran**

Title: **METHOD AND APPARATUS FOR ALLOWING A
BROADCAST TO REMOTELY CONTROL A COMPUTER**

APPELLANTS' MAIN BRIEF ON APPEAL

This Brief is submitted in accordance with 37 C.F.R. § 41.67 concerning the Notice of Appeal filed January 2, 2007 in response to the Final Office Action dated July 3, 2006, wherein the Examiner finally rejected claims 1-7 and 9-14 that comprise all of the pending claims in this application.

I. Real Party Interest.

The party in interest is L.V. Partners, L.P., a Texas limited partnership, whose general partner is LV GP, L.L.C., and whose principal office and place of business is at 2626 Cole Avenue, Dallas, Texas 75204.

II. Related Appeals and Interferences.

Appellants have the following related application pending appeals:

- U.S. Patent Application Serial No. 07/614,937, Appeal No. 2007-1745 entitled "LAUNCHING A WEB SITE USING A PASSIVE TRANSPONDER" (Atty. Dkt. No. PHLY-25,356), filed on July 11, 2000;

- U.S. Patent Application Serial No. 09/494,924, entitled “INPUT DEVICE FOR ALLOWING INTERFACE TO A WEB SITE IN ASSOCIATION WITH A UNIQUE INPUT CODE” (Atty. Dkt. No. PHLIY-24,913), filed on February 1, 2000;
- U.S. Patent Application Serial No. 10/884,377 entitled “OPTICAL READER WITH ULTRAVIOLET WAVELENGTH” (Atty. Dkt. No. PHLIY-26,826) filed on July 2, 2004; and
- U.S. Patent Application Serial No. 09/382,421 entitled “COMBINED PRODUCT CODE AND INSIGNIA FOR SIGNIFYING AN INTERNAL INTERACTIVE CODE” (Atty. Dkt. PHLIY-24,740) filed on August 24, 1999.

Appellants have filed Notices of Appeal in the following related applications:

- U.S. Patent Application Serial No. 09/659,520 entitled “LAUNCHING A WEB SITE USING A PERSONAL DEVICE” (Atty. Dkt. No. PHLIY-25,355), filed on September 12, 2000;
- U.S. Patent Application Serial No. 09/382,423, entitled “METHOD AND APPARATUS FOR UTILIZING AN AUDIBLE SIGNAL TO INDUCE A USER TO SELECT AN E-COMMERCE FUNCTION” (Atty. Dkt. No. PHLIY-24,739), filed on August 24, 1999;
- U.S. Patent Application Serial No. 09/417,863, entitled “SOFTWARE DOWNLOADING USING A TELEVISION BROADCAST CHANNEL” (Atty. Dkt. No. PHLIY-24,767), filed on October 23, 1999;
- U.S. Patent Application Serial No. 09/659,170, entitled “ACCESSING A VENDOR WEB SITE USING PERSONAL ACCOUNT INFORMATION RETRIEVED FROM A CREDIT CARD COMPANY WEB SITE” (Atty. Dkt. No. PHLIY-25,340), filed on September 11, 2000;

- U.S. Patent Application Serial No. 09/602,034 entitled “CONTROLLING A PC USING A TONE FROM A CELLULAR TELEPHONE” (Atty. Dkt. No. PHLY-25,337), filed on June 23, 2000;
- U.S. Patent Application Serial No. 09/382,372 entitled “METHOD AND APPARATUS FOR MATCHING A USER'S USE PROFILE IN COMMERCE WITH A BROADCAST” (Atty. Dkt. No. PHLY-24,738), filed August 24, 1999;
- U.S. Patent Application Serial No. 09/642,891, entitled “RETRIEVING PERSONAL ACCOUNT INFORMATION FROM A WEB SITE BY READING A CREDIT CARD” (Atty. Dkt. No. PHLY-25,338), filed on August 21, 2000.

The above-identified patent application has no related interferences.

III. Status of the Claims.

Claims 1-7 and 9-14 from the application are pending, stand firmly rejected, and are on appeal here. A complete and current listing of Claims 1-7 and 9-14 are attached here in the **CLAIMS APPENDIX**.

IV. Status of Amendments.

Appellants have not filed an Amendment and Response to Office Action in response to the Final Office Action, mailed July 3, 2006. The last Response amending claims was filed on October 7, 2005.

V. Summary of the Claimed Subject Matter.

The present invention, as set forth currently in independent Claim 1, relates to a system for launching an advertisement on a computer.¹ The system comprising a computer having an audio input interface and a display.² The system further includes an audio output acoustically coupled³ from a broadcast receiver of a broadcast source to said audio input interface for providing an audio signal having encoded therein advertisement information that is comprised of

¹ See Specification page 14, lines 19-20, page 15, lines 1-5.

² See Specification page 12, lines 1-6, page 13, line 21 – page 14, line 19, reference #112 on Figure 1.

³ See Specification page 11, line 20 – page 12, line 6.

both advertising content and control information.⁴ Further, the system includes a computer program operable on said computer and responsive to said audio signal output from said receiver of said broadcast source to allow said computer program to be controlled by the received control information for output of the advertising content.⁵ The computer program of the system comprises a program for accessing the advertising information coupled from said receiver of said broadcast source,⁶ a decoder for decoding the received advertising information encoded in said audio signal to provide decoded advertising content and decoded control information,⁷ and means for launching said decoded advertising content on said display of said computer under the control of said decoded control information substantially at the time of reception of the advertisement information.

The present invention, as set forth currently in dependent Claim 2, relates to a system of Claim 1, where the audio input interface comprises a circuit for converting said audio signal output coupled from said receiver of said broadcast source into digital form for processing by said computer.⁸

The present invention, as set forth currently in dependent Claim 3, relates to a system of Claim 2, where the circuit comprises an audio circuit having an input coupled to a microphone⁹ and an output.¹⁰ The system further comprises an A/D converter coupled to said output wherein an output of said A/D converter is coupled to a system bus of said computer.¹¹

The present invention, as set forth currently in dependent Claim 4, relates to a system of Claim 1, where the audio signal comprises an advertisement coupled with a sound effect selected from the group consisting of clapping, clicking, whistling, audible tones, subaudible tones, superaudible tones or a combination thereof.¹²

⁴ See Specification page 11, line 11 – page 12, line 6; page 13, line 24 – page 14, line 7; page 14, lines 19-26; page 15, lines 1-7.

⁵ See Specification page 15, line 23 – page 16, line 4.

⁶ See Specification page 15, line 17 – page 16, line 4.

⁷ See Specification page 20, line 24 – page 21, line 20.

⁸ See Specification page 15, lines 20-24.

⁹ See Specification page 12, lines 1-3.

¹⁰ See Specification page 15, lines 17-23; reference number 206 on Figure 2.

¹¹ See Specification page 15, lines 17-23.

¹² See Specification page 15, lines 1-7.

The present invention, as set forth currently in dependent Claim 5, relates to a system of Claim 1, where the audio output comprises a broadcast or recorded program including the advertisement encoded in an audio component of said program.¹³

The present invention, as set forth currently in dependent Claim 6, relates to a system of Claim 1, where the audio output comprises an audible signal for initiating execution by said program in said computer.¹⁴

The present invention, as set forth currently in dependent Claim 7, relates to a system of Claim 1, where the advertisement information includes information selected from the group consisting of product identity, product description, manufacturer identity, advertising messages or program execution commands.¹⁵

The present invention, as set forth currently in dependent Claim 9, wherein a means for launching comprises a means for coupling said computer to said display.¹⁶

The present invention, as set forth currently in independent Claim 10, relates to a method for launching an advertisement on a computer¹⁷ comprising the step of providing a computer having an audio input interface responsive to an audio signal output from a broadcast receiver of a broadcast source and a display coupled to the computer.¹⁸ The method further comprises the step of receiving the audio signal output having advertising information encoded therein at the audio input interface that is comprised of both advertising content and control information and decoding the advertising information for processing by the computer to provide decoded advertising content and decoded control information.¹⁹ Further, the method comprises the step of initiating execution of a computer program on the computer responsive to the audio signal having the encoded control and advertising information.²⁰ The step of initiating execution of a computer program comprises the steps of interpreting the decoded received advertising

¹³ See Specification page 14, lines 1-5; page 14, line 19 – page 15, line 7.

¹⁴ See Specification page 15, lines 23-27.

¹⁵ See Specification page 14, lines 10-21; page 15, lines 9-12; page 17, lines 1-3; original Claim 7.

¹⁶ See Specification page 13, lines 21-23; page 14, lines 5-10; page 15, lines 7-12.

¹⁷ See Specification page 14, lines 19-20; page 15, lines 1-5.

¹⁸ See Specification page 12, lines 1-6; page 13, line 21 – page 14, line 19; reference #112 Figure 1.

¹⁹ See Specification page 11, line 20 – page 12, line 6; page 13, line 24 – page 14, line 7; page 14, line 19 – page 15, line 16.

²⁰ See Specification page 15, line 17 – page 16, line 4.

information received during the receiving step to determine if the decoded advertising content is to be displayed based upon the decoded control information,²¹ and launching a display of the decoded advertising content upon the display wherein the decoded control information is determined to indicate such substantially at the time of reception of the advertising information.²²

The present invention, as set forth currently in dependent Claim 11, relates to the method of Claim 10, where the step of providing a computer comprises the step of providing an audio input interface for receiving the audio signal output from the receiver of the broadcast source.²³ The method further comprises the step of converting the received audio signal to a form readable by the computer.²⁴ Further, the method comprises transmitting converted audio signal information to the computer.²⁵

The present invention, as set forth currently in dependent Claim 12, relates to the method of Claim 11, where the step of providing an audio input interface comprises the step of providing an audio circuit having an input coupled to a microphone²⁶ and an output.²⁷ The method further comprises coupling an A/D converter between the output of the audio circuit and a system bus of the computer.²⁸

The present invention, as set forth currently in dependent Claim 13, relates to the method of Claim 10, where the step of receiving comprises the step of receiving a broadcast or recorded program source having encoded therein advertising information selected from the group consisting of product identity, product description, manufacturer identity, advertising messages or program execution commands.²⁹

The present invention, as set forth currently in dependent Claim 14, relates to the method of Claim 10, where the audio signal output comprises a sound effect selected from the group

²¹ See Specification page 20, line 24 – page 21, line 20.

²² See Specification page 13, line 23 – page 14, line 10; page 15, lines 7-12, page 20, line 24 – page 21, line 20.

²³ See Specification page 15, lines 20-21.

²⁴ See Specification page 15, lines 18-27.

²⁵ See Specification page 15, lines 18-27.

²⁶ See Specification page 12, lines 1-3.

²⁷ See Specification page 15, lines 17-23; reference # 206 on Figure #2.

²⁸ See Specification page 15, lines 17-23.

²⁹ See Specification page 14, lines 10-21; page 15, lines 9-12; page 17, lines 1-3; original Claim 13.

consisting of clapping, whistling, audible tones, subaudible tones, superaudible tones or a combination thereof.³⁰

VI. Grounds of Rejection to be Reviewed on Appeal.

Claims 1, 5, 7, 9-11 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,708,478 to Tognazzini (“*Tognazzini*”) in view of U.S. Patent No. 6,029,045 to Picco (“*Picco*”) and further in view of U.S. Patent No. 5,887,243 to Harvey (“*Harvey*”). Claims 2, 3, 4, 6, 12, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,708,478 to Tognazzini (“*Tognazzini*”) in view of U.S. Patent No. 6,029,045 to Picco (“*Picco*”), further in view of U.S. Patent No. 5,887,243 to Harvey (“*Harvey*”), and further in view of U.S. Patent 5,133,011 to McKiel (“*McKiel*”).

As detailed below, Appellants believe that the Examiner has improperly applied the combination of the *Tognazzini*, *Picco* and *Harvey* references to Claims 1, 5, 7, 9-11 and 13. Further, Appellants believe that the Examiner has improperly applied the combination of the *Tognazzini*, *Picco*, *Harvey*, and *McKiel* references to Claims 2, 3, 4, 6, 12, 14. Specifically, Appellants submit that the §103 rejections based on these combinations are not proper and are without basis, and that the Examiner has failed to state a *prima facie* case as to either combination constituting a viable combination of references under 35 U.S.C. § 103.

VII. Argument and Discussion.

In order to prevail, Appellants must show that Examiner has improperly combined *Tognazzini*, *Picco*, *Harvey*, and *McKiel* in support of the 35 U.S.C. § 103. As such, a brief discussion of the relevant rules and recent court decisions affecting a proper rejection under 35 U.S.C. § 103 follows.

A. Rejections under 35 U.S.C. §103

MPEP § 2142 specifies that:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not

³⁰ See Specification page 15, lines 1-7.

produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

In regard to what an examiner must show in order to establish a *prima facie* case of obviousness, MPEP § 2142 further explains that:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. . . . Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

In regard to what an examiner must do in order to meet the first criterion for a *prima facie* rejection, MPEP § 2143.01 specifies that:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

In the present application, the various combinations of references proposed by the Examiner are not supported by a proper suggestion or motivation to make each proposed modification. This means that the first criterion for a *prima facie* rejection has not been met, which in turn means the Examiner has failed to carry the burden of establishing a *prima facie* rejection. In addition, certain claim limitations are not taught or suggested by the cited combinations, which means that the third criterion for a *prima facie* rejection has not been met, and that the Examiner has further failed to carry the burden of establishing a *prima facie* rejection for this independent reason. Further, the Examiner has failed to put forth any arguments and has not provided any articulated reasoning as to how any deficiency (missing element) could be solved in a predictable manner through combination with any other reference.

B. Recent Decisions Affecting a Finding of Obviousness.

1. In re *Kahn*.

With respect to obviousness, a claimed invention is unpatentable if the differences between it and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.”³¹ Obviousness is a question of law, based upon underlying factual questions which are reviewed for clear error following a bench trial. These “underlying factual inquiries include: (1) The scope and content of the prior art; (2) The level of ordinary skill in the prior art; (3) The difference between the claimed invention and the prior art; and (4) Objective evidence of nonobviousness.”³²

In *Kahn* the Court noted that:

“...to reject claims in an Application under § 103, an Examiner must show and un rebutted *prima facie* case of obviousness . . . on appeal to the board, an Applicant can overcome a rejection by showing insufficient evidence of a *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.”³³

When combining references, it is well recognized that “[m]ost inventions arise from a combination of old elements and each element may often be found in the prior art.”³⁴ “However, mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole.”³⁵ *Kahn* further states:

Rather, to establish a *prima facie* case of obviousness based on a combination of elements disclosed in the prior art, the Board must articulate the basis on which it concludes that it would have been obvious to make the claimed invention. *Id.* In practice, this requires that the Board “explain the reasons one of the ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.” *Id.* at 1357-59. This entails consideration of both the “scope and

³¹ 35 U.S.C. § 103(a) (2000); *In re Kahn*, 441 F.3d 977, 985 (Fed. Cir. 2006) (citing *Graham v. John Deere Co.*, 383 U.S.1, 13-14, 86 S.Ct. 684, 15L, Ed. 2d 545, 1962)

³² *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999).

³³ *Kahn*, 441 F.3d at 985

³⁴ *In re Rouffett*, 149 F.3d 1350, 1357

³⁵ *Kahn*, 441 F.3d at 986, citing *Rouffett*, 149 F.3d at 1355, 1357

content of the prior art” and the “level of ordinary skill in the pertinent art” aspects of the Graham test.³⁶

The primary test that has been put forth by the Federal Circuit is the teaching-suggestion-motivation test.³⁷ *Kahn* set forth that, when there is no explanation provided by the Board to explain the motivation, or the suggestion or the teaching, that would have led a skilled artisan at the time of the invention to the claimed combination as a whole, then the court would infer that hindsight was utilized to conclude that the invention was obvious. *Kahn* relied upon the *Rouffett* case for this teaching at 1358. The “teaching-suggestion-motivation” requirement was set forth to protect against the entry of hindsight into the obviousness analysis, a problem which §103 was meant to confront. Thus, in order to establish a *prima facie* case, some explanation as to teaching, suggestion, or motivation of each of the references and how they can be combined is required.

Although *Kahn* sets forth the teaching-suggestion-motivation test, there is still the “analogous-art” test that must be applied, this being one test that was articulated by the Supreme Court as part of the *Graham* analysis.³⁸ “The analogous-art test requires that the Board show a reference is either in the field of the Applicant’s endeavor or is reasonably pertinent as to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection.”³⁹ The following was further stated by *Kahn*:

References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art. *Id.* (“It is necessary to consider the reality of the circumstances, in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.” (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979))). We have explained that this test begins the inquiry into whether a skilled artisan would have been motivated to combine references by defining the prior art relevant for the obviousness

³⁶ *Kahn*, 441 F.3d at 986

³⁷ *KSR* changed this test as being a factor as opposed to an absolute benchmark. See *KSR International Co. v. Teleflex Inc., et al.*, 127 S. Ct. 1727 (2007)

³⁸ See *Dann v. Johnston*, 425 U.S. at 219, 226, 96 S.Ct. 1393, 47 L.Ed 2d 692 (1976).

³⁹ *Kahn*, 441 F.3d at 987.

determination, and that it is meant to defend against hindsight. See *id.*; *In re Clay*, 996 F.2d 656, 659-60 (Fed. Cir. 1992).⁴⁰

As such, the first step of analyzing the combination provided by the Examiner is to examine the references and determine if the combination satisfies the analogous-art test. The next step for determining obviousness is to analyze the teaching-suggestion-motivation test which:

... picks up where the analogous art test leaves off and informs the Graham analysis. To reach a non-hindsight driven conclusion as to whether a person having ordinary skill in the art at the time of the invention would have viewed the subject matter as a whole to have been obvious in view of multiple references, the Board must provide some rationale, articulation, [**23] or reasoned basis to explain why the conclusion of obviousness is correct. The requirement of such an explanation is consistent with governing obviousness law, see § 103(a); *Graham*, 383 U.S. at 35; *Dann*, 425 U.S. at 227-29, and helps ensure predictable patentability determinations.⁴¹

Even if all of the elements of a claim are disclosed in various prior art references, the long-standing rule that a claimed invention, as a whole⁴², cannot be said to be obvious unless there is some reason or motivation given in prior art why someone would have been prompted to combine the teachings or the references.⁴³ The prior art itself may suggest desirability of a combination, or the motivation may come from other sources (for example, economic factors).⁴⁴ Thus, the motivation to combine the relevant art or teachings does not have to be found explicitly in the prior art but, rather, can be implicit thereto. “However, rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”^{45,46} The purpose of such requirement is to ensure “due process and non-arbitrary decision making”, as it is in § 103.⁴⁷

⁴⁰ *Id.*

⁴¹ *Kahn*, 441 F.3d at 987.

⁴² *In re Hiraro*, 535 F.2d, 67, (C.C.P.A. 1966).

⁴³ *In re Regel*, 526 F.2d, 1399 (C.C.P.A. 1975); *In re Bond*, 910 F.2d, 831, (Fed. Cir. 1990).

⁴⁴ See e.g. *In re Clinton*, 527 F.2d 1226 (C.C.P.A. 1976); *Cable Elec. Prods., Inc. v. Genmart, Inc.*, 77 F.2d, 1015 (Fed. Cir. 1985).

⁴⁵ *Kahn*, 441 F.3d at 998 referring to *Lee*, 277, F.3d at 1343-46 and *Rouffett*, 149 F.3d at 1355-59.

⁴⁶ It is noted that the Supreme Court in the recently decided case, *KSR International Co. v. Teleflex Inc., et al.*, 127 S. Ct. 1727 (2007) cited this specific language at page 1741 therein.

⁴⁷ *Kahn*, 441 F.3d at 998 referring to *Lee*, 277, F.3d at 1343-46 and *Rouffett*, 149 F.3d at 1355-59.

Kahn articulated the considerations for motivation when analyzing obviousness. The Court stated “the problem examined is not the specific problem solved by the invention, but the general problem that confronted the inventor before the invention was made.”⁴⁸ In the reference in *Cross*, the quote that was cited by the Court⁴⁹ was that “one of ordinary skill in the art need not see the identical problem addressed in the prior art reference to be motivated to apply its teachings.” As to motivation, the Courts upheld that the evidence of motivation to combine the prior art references “may flow from the prior art references themselves, knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved.”⁵⁰ *Kahn* summarized the motivation-suggestion-teaching test as follows:

Therefore, the “motivation-suggestion-teaching” test asks not merely what the references disclose, but whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims. See *Cross Med. Prods.*, 424 F.3d at 1321-24. From this it may be determined whether [**26] the overall disclosures, teachings, and suggestions of the prior art, and the level of skill in the art—i.e., the understandings and the knowledge of persons having ordinary skill in the art at the time of the invention—support the legal conclusions of obviousness. See *Princeton Biochemicals*, 411 F.3d at 1338 (pointing to evidence supplying detailed analysis of the prior art and the reasons one of ordinary skill would have possessed the knowledge and motivation to combine).⁵¹

In *Alza Corporation v. Mylan Laboratories, Inc.*, 464 F.3d 1286 (Fed. Cir. 2006), the Federal Circuit has responded to arguments made during pendency of the recently decided Supreme Court case, *KSR International Co v. Teleflex Inc, et al.*, 127 S. Ct. 1727 (2007) and has spelled out its law on obviousness, insisting that it is in harmony with Supreme Court precedent.

In the facts of this case, *Alza* sued *Mylan* for infringement of its patent (6,124,355) under 35 U.S.C. §271(e)(2) after *Mylan* sought FDA approval to market a generic version of

⁴⁸ *Kahn*, 441 F.3d at 988, referring to *Cross Medical Products, Inc. v. Metronics Sofamore Danek, Inc.*, 424 F.3d 1293, 1323 (Fed. Cir. 2005).

⁴⁹ *Cross*, 424 F.3d at 1323.

⁵⁰ *Medichem S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir 2006), quoting *Brown and Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d, 1120, 1125 (Fed. Cir. 2000).

⁵¹ *Kahn*, 441 F.3d at 988.

oxybutynin, a drug used to treat urinary incontinence. The Federal Circuit affirmed the obviousness and non-infringement decisions of the district court.

In the process, Judge Arthur Gajarsa dedicated five pages of his opinion to then outline the Federal Circuit's law on obviousness, responding to many arguments made in the then pending Supreme Court case of *KSR Int'l Co. v. Teleflex, Inc.* (U.S. No. 04-1350). KSR and many amici, including the U.S. government, have challenged the Federal Circuit rule that proof of obviousness must include a showing of a "teaching, suggestion, or motivation" to combine the prior art elements of the claimed invention. KSR and others have said that this requirement is too rigid and is inconsistent with Supreme Court decisions issued since *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

Judge Gajarsa wrote the following in his *Alza* opinion:

This requirement has been developed consistent with the Supreme Court's obviousness jurisprudence as expressed in *Graham* and the text of the obviousness statute that directs us to conduct the obviousness inquiry "at the time the invention was made" 35 U.S.C. §103. As we explained in [*In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006)],

The motivation-suggestion-teaching test picks up where the analogous art test leaves off and informs the *Graham* analysis. To reach a non-hindsight driven conclusion as to whether a person having ordinary skill in the art at the time of the invention would have viewed the subject matter as a whole to have been obvious in view of multiple references, the Board must provide some rationale, articulation, or reasoned basis to explain why the conclusion of obviousness is correct. The requirement of such an explanation is consistent with governing obviousness law . . .

441 F.3d at 987. We further explained that the "motivation to combine" requirement "[e]ntails consideration of both the 'scope and content of the prior art' and 'level of ordinary skill in the pertinent art' aspects of the *Graham* test." *Id.* at 986.

At its core, our anti-hindsight jurisprudence is a test that rests on the unremarkable premise that legal determinations of obviousness, as with such determinations generally, should be based on evidence rather than on mere speculation or conjecture. Our court's analysis in *Kahn* bears repeating:

A suggestion, teaching, or motivation to combine the relevant prior art teachings *does not have to be found explicitly in the prior art*, as “the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references.... The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” However, rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be *some* articulated reasoning with *some* rational underpinning to support the legal conclusion of obviousness. This requirement is as much rooted in the Administrative Procedure Act [for our review of Board determinations], which ensures due process and non-arbitrary decision making, as it is in § 103.

441 F.3d at 987-88 (quoting *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000)) (citations omitted) (emphases added). There is flexibility in our obviousness jurisprudence because a motivation may be found *implicitly* in the prior art. We do not have a rigid test that requires an actual teaching to combine before concluding that one of ordinary skill in the art would know to combine references. This approach, moreover, does not exist merely in theory but in practice, as well. Our recent decisions in *Kahn* and in [*Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293 (Fed. Cir. 2005)] amply illustrate the current state of this court’s views.⁵²

2. KSR

The recently issued Supreme Court Case in *KSR* held that the Federal Circuit’s Teaching, Suggestion or Motivation (TSM) test to combine known elements in order to show that the combination is obvious is too rigid. The Court reinforced their position that analysis under *Graham* has been reaffirmed. The Court indicated that its holding was that a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men.”⁵³ The Court stated that this was a “principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”⁵⁴ The Court further went on to indicate that there were three cases that illustrated the application of

⁵² *Alza Corporation v. Mylan Laboratories, Inc.*, 464 F.3d 1286, 1290 (Fed. Cir. 2006).

⁵³ *KSR*, 127 S. Ct. 1727, 1739 (2007), Citing *Great Atlantic & Pacific Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152 (1950).

⁵⁴ *Id.*

this doctrine of predictability. The first case was *United States v. Adams*, 383 U.S. 39, 40 (1966). In discussing this case, the Court noted that it had “relied upon the corollary principal that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious.”⁵⁵ In the second case, *Anderson’s-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969), the Court reiterated “while the combination of old elements performed a useful function, it added nothing to the nature and quality of the radiant-heat burner already patented.”⁵⁶ In the third case, *Sakraida v. AGPro, Inc.*, 425 U.S. 273 (1976), the Court stated that “when a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.”⁵⁷

The Court summarized these three cases as follows:

The principles underlying these cases are instructive when the question is whether a patent claiming the combination of elements of prior art is obvious. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. *If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability.* For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* and *Anderson’s-Black Rock* are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.⁵⁸ (Emphasis added.)⁵⁹

The Court recognized that following the above stated principals might involve more than “the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement.”⁶⁰ The Court noted that it might “be necessary for a Court to look to interrelated teachings of multiple patents; the effects of demands

⁵⁵ *KSR*, 127 S. Ct. at page 1740.

⁵⁶ *Id.*

⁵⁷ *KSR*, 127 S. Ct. at page 1740, Citing *Sakraida* at 282.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent that issued.”⁶¹ However, the Court also noted that the analysis should be “made explicit” citing *Kahn* wherein it stated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reason with some rational underpinning to support the legal conclusion of obviousness.”⁶² The Court noted that, however, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”⁶³

Although the Court in this opinion rejected the rigidity of the TSM test, there was some reference to the decision in *Alza* wherein the Court noted the Federal Circuit’s position that “there is flexibility in our obviousness jurisprudence because the motivation may be found *implicitly* in the prior art. We do not have a rigid test that requires an actual teaching to combine . . . ,” citing *Alza*, 464 F.3d at 1291.⁶⁴ However, the Court also noted that the *Alza* decision was not before it and that, although they may describe an analysis more consistent with the Court’s earlier precedence, the Court of Appeals would have to consider the current decision in view of its future cases.

C. 35 U.S.C § 103 Rejection in the Application on Appeal.

Summary of Rejection:

Claims 1, 5, 7, 9-11, 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tognazzini in view of Picco* in view of *Harvey*.

Claims 2, 3, 4, 6, 12, and 14 stand rejected as being unpatentable over the combination of *Tognazzini, Picco* and *Harvey* in further view of *McKiel*.

⁶¹ *KSR*, 127 S. Ct. at page 1741

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.* at page 1743.

Regarding Claims 1, 5, 7, 9-11, and 13, the Examiner stated as a summary of his rejection in the Final Office Action dated July 3, 2006:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made that Tognazzini's display of advertisement information related to broadcasts can be displayed in real time and control information can be utilized in real time. One would have been motivated to do this in order to better utilize broadcast and computer medium for presenting of advertising or information of interest to the user.

Claim 5: Tognazzini and Picco disclose the system of claim 1, and Tognazzini further discloses that said audio output comprises:

a broadcast or recorded program including said advertisement encoded in an audio component of said program (col 3, line 65-col 4, line 2; col 1, line 19-26).

Claim 7, 13: Tognazzini and Picco disclose the system, method of claim 1, 10 and Tognazzini further discloses that said advertisement includes:

information selected from the group consisting of product identity, product description, manufacturer identity, advertising messages or program execution commands (col 4, lines 1-14).

Claim 9: Tognazzini and Picco disclose the system of claim 8, and Tognazzini further discloses that said means for launching comprises:

Means for coupling said computer to said display (col 16, lines 6-10; col 3, lines 14-18).

Claim 11: Tognazzini and Picco disclose the method of claim 10, and Tognazzini further discloses providing an audio input interface for receiving audio signal output from the receiver of the broadcast source,

Converting the received audio signal to a form readable by the computer,

And transmitting converted audio signal information to the computer (col 3, line 63-col 4, line 2; col 5, lines 25-35; col 6, lines 1-10).⁶⁵

Regarding Claims 2, 3, 4, 6, 12, and 14, the Examiner stated in the Final Office Action dated July 3, 2006:

Claim 2, 3, 12: Tognazzini and Picco discloses the system of claim 1. Tognazzini further discloses that said audio input interface

⁶⁵ See Final Office Action mailed July 03, 2006, pages 7 and 8; Office Action mailed November 03, 2005, pages 7 and 8; and Final Office Action mailed April 07, 2005, pages 4 and 5.

comprises: a circuit for converting said audio signal output coupled from said receiver of said broadcast source into a form for processing by said computer (col 3, line 63-col 4, line 2; col 5, lines 25-35; col 6, lines 1-10).

Tognazzini does not explicitly disclose that the form is digital. However, McKiel discloses converting an audio signal into digital form (col 4, lines 25-33).

McKiel further discloses an audio circuit having an input coupled to a microphone and an output (Fig. 1), and an A/D converter coupled to said output wherein an output of said A/D converter is coupled to a system bus of said computer (col 4, lines 25-33).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add McKiel's analog to digital converter to Tognazzini's computer that receives an audio signal's analyzes, processes it, and performs computer functions and analysis on it. One would have been motivated to do this because a computer can manipulate data more effectively when the data is in digital form that a computer needs to perform functions with.

Claim 4, 6, 14: Tognazzini and Picco disclose the system, method of claim 1.

Tognazzini further discloses that said audio signal output comprises: a sound effect selected from the group consisting of superaudible tones (col 5, lines 57-61; col 10, lines 5-9).

Tognazzini does not explicitly disclose audible tones, clapping, whistling. However, McKiel discloses that said audio signal output can be a sound effect such as audible tones, clapping, whistling, or a combination thereof (col 1, lines 20-29).

Tognazzini does not explicitly disclose an audible signal for initiating execution by said program in said computer. However, McKiel discloses an audible signal for initiating execution by said program in said computer (col 1, lines 20-29).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add McKiel's audible signals to Tognazzini's computer that receives an audio signal, analyzes it, and performs computer functions. One would have been motivated to do this because an audible signal is a form

of audio signal and audible signals are a form of broadcast useful in some applications or systems.⁶⁶

Appellants submit that the Examiner simply has broken Appellants' invention into its component parts and then attempted to find a prior art reference corresponding to each component to support an obviousness rejection under 35 U.S.C. § 103. In order to establish a *prima facie* case of obviousness using the combinations of *Tognazzini*, *Picco*, and *Harvey*, and *Tognazzini*, *Picco*, *Harvey* and *McKiel*, the Examiner must provide an explanation as to whether the overall disclosures of the references, the teachings therein and the suggestions associated therewith, in addition to the level of skill in the art, support a conclusion of obviousness as it relates to the entire invention. Appellants submit that the Examiner's combinations of *Tognazzini*, *Picco*, *Harvey*, and *McKiel* are conclusory, and that no articulated reasoning with some rational underpinning to support the combination has been provided. Further, Appellants submit that support for the combination is based on hindsight and that the combination is improper.

1. Independent Claim 1 as rejected by the combination of *Tognazzini*, *Picco* and *Harvey*.

In the Final Office Action mailed July 03, 2006, the Examiner maintains his 35 U.S.C. § 103 rejection of Claims 1-7 and 9-14. On pages 2 and 3 of the Final Office Action, the Examiner states:

“ Claim 1, 10: Tognazzini discloses a method, system for launching an advertisement on a computer comprising:

a computer having an audio input interface and a display (Fig. 3; col 7, lines 50-60),

an audio output acoustically coupled from a receiver of a broadcast source to said audio input interface for providing an audio signal having encoded therein advertisement information (col 7, lines 50-60; col 3, lines 35-50; col 3, line 63-col 4, line 2),

and a computer program operable on said computer and responsive to said audio signal output from said receiver of said broadcast source to allow said computer program to be controlled

⁶⁶ See Final Office Action mailed July 03, 2006, pages 8-10; Office Action mailed November 03, 2005, pages 9 and 10; and Final Office Action mailed April 07, 2005, pages 6 and 7.

by said advertisement information (col 3, lines 35-50; col 3, line 63-col 4, line 2; col 5, lines 25-45; col 4, lines 8-11).

Tognazzini further discloses a program for accessing advertising information coupled from said receiver of said broadcast source, means for decoding advertising information encoded in said audio signal (col 3, line 65-col 4, line 2),

and means for launching said advertisement on said display of said computer (col 4, lines 5-8; col 16, lines 6-10; col 3, lines 14-18).

Tognazzini further discloses an audio signal and a coupling device (col 3, lines 39-47).

In the same paragraph, the Examiner further states “Tognazzini does not explicitly disclose control information that is sent to the user computer for controlling whether to display the advertising information.”⁶⁷ The Examiner offers to combine *Tognazzini* with the *Picco* reference to “[disclose] sending the advertising information with the control information in the broadcast wherein the control information controls whether to display that advertising information”⁶⁸ The Examiner concludes that “[therefore,] it would have been obvious to one of ordinary skill in the art at the time of the invention was made to add Picco’s advertiser control of advertising information sent with advertising information to Tognazzini’s advertiser provided information. One would have been motivated to do this in order to allow the advertiser better control of advertisement display in order to more effectively reach a user.”⁶⁹ The Examiner further offers to combine *Tognazzini* and *Picco* with *Harvey* to “[disclose] real time control of a computer based on broadcast transmissions including control of content or display information.”⁷⁰

2. The Cited References – Teaching/Suggestion/Motivation Test.

The process for determining obviousness is to analyze under the teaching-suggestion-motivation test. As previously discussed, the recent *KSR* Supreme Court case indicated that the Teaching-Suggestion-Motivation (TSM) test is not a rigid test; however, it is still considered to be a factor. Under this test, each of the references must contain some type of teaching, as well as some type of suggestion, to allow for the combination. One also must be motivated to combine

⁶⁷ See Final Office action mailed July 03, 2006, page 3

⁶⁸ See Final Office action mailed July 03, 2006, page 3

⁶⁹ See Final Office action mailed July 03, 2006, pages 4 and 5.

⁷⁰ See Final Office action mailed July 03, 2006, page 5.

the references. If this test alone were utilized, the questions that must be answered are whether *Tognazzini*, *Picco* and *Harvey* contain any teaching that would suggest to one skilled in the art to combine these three references to overcome the problem addressed by the present application, and whether any motivation to so combine exists.

a. Discussion of U.S. Patent No. 5,708,478 to *Tognazzini*

The primary reference cited by the Examiner is *Tognazzini*. The primary purpose of *Tognazzini* is to provide a system that gives a user the ability to use advertiser information at a time subsequent to when in it was broadcast.⁷¹ The user can use the stored advertiser information to connect to the advertiser via a cell-phone or the user can receive directions to the advertiser's geographic location.⁷² The system allows for capture of advertisement information received from audio or video signal.⁷³ Ultimately, the system uses advertisement information to connect the user to the advertiser or provide directions to a geographic location of a preferred advertiser.⁷⁴ This advertisement information is contained in an AM signal, an FM signal or a television signal. In the AM signal, the tones are embedded in a low frequency range. In the FM signal, the tones are embedded in the supra or super audible data carriers on the FM subcarrier channel. In the television signal, the information is disposed in the vertical blanking interval.⁷⁵ The embedded tones are extracted, decoded and sent to a main central processing unit. The main central processing unit then selectively formats and outputs the advertisement data upon the request of the user.⁷⁶ The main central processing unit stores the advertisement data in a scroll-through memory and an advertiser memory. The user may then recall older advertisements for display or select the most recent advertisement for display.⁷⁷ As such, all that is disclosed in *Tognazzini* is the content that, upon detection thereof, indicates that advertisement content was transmitted, which advertisement content is then extracted from the transmission and stored for display, based on the user's preferences.

⁷¹ See *Tognazzini* Col. 2, lines 15-20.

⁷² See *Tognazzini* Col. 2, lines 29-39.

⁷³ See *Tognazzini* Abstract.

⁷⁴ See *Tognazzini* Col 3, lines 35-63

⁷⁵ See *Tognazzini* Col 5, lines 56-65.

⁷⁶ See *Tognazzini* Col 6, lines 1-5.

⁷⁷ See *Tognazzini* Col 6, lines 6-59.

Independent Claim 1 of the instant application, as currently presented, is directed, in the preamble, to a system for launching an advertisement on a computer. The first step is to provide a computer having an audio input interface and a display. The second step of Claim 1 is to provide an audio input *acoustically* coupled from a broadcast receiver of a broadcast source to said audio input interface for providing an audio signal having encoded therein advertisement information that is comprised of *both advertising content and control information*. Although *Tognazzini* provides a computer having an audio input interface and a display, *Tognazzini* does not provide an audio input acoustically coupled from a broadcast receiver of a broadcast source to said audio input. In the April 2004 and October 2003 Office Actions, the Examiner has cited column 3 lines 35-50; column 3 line 63 - column 4 line 2; and column 7 lines 50-60 of the *Tognazzini* disclosure to teach the “acoustically coupled” element.⁷⁸ The specific disclosure, including column 5, lines 55-65 set forth as follows:

To achieve these features and advantages, the present invention provides a computer architecture used to enable radio listeners and television viewers to obtain advertising information at a time subsequent to when such information is broadcast to the listener/viewer. According to one design, the computer architecture includes an input device detector and decoder processor that receives an incoming video or audio signal, and determines whether the incoming video or audio signal includes advertisement specific data of an advertiser. The computer architecture also includes a data processor, operatively coupled to the input device detector and decoder processor. The data processor captures and storing the advertiser specific data. In addition, the computer architecture also includes optionally a printer connected to the data processor, a display connected to the data processor, and a telephone connected to the data processor.⁷⁹

In another embodiment, a computer implemented method is provided that captures advertiser information received from an audio or video signal. The method includes the steps of receiving an incoming video or audio signal, determining whether the incoming video or audio signal includes advertisement specific data of an advertiser, and capturing and storing the advertiser specific data.⁸⁰

⁷⁸ See Final Office Action mailed July 3, 2006, page 2, paragraph 3; Office Action mailed April 4, 2004 at page 2, paragraph 3; and Office Action mailed October 21, 2003, page 3, paragraph 4

⁷⁹ See *Tognazzini* Col 3, lines 35-50

⁸⁰ See *Tognazzini* Col 3, line 63 – Col 4, line 2.

For example, if the input signal is a radio AM signal, input device detector/decoder 16 analyzes the AM signal for embedded tones in the *low frequency range*. On the other hand, if the input signal is a radio FM signal, input device detector/decoder 16 analyzes the input signal for *supra or super audible data carriers in the FM subcarrier channel*. If the input signal is a television signal, device detector/decoder 16 analyzes the input signal for the *vertical retrace interval* for the additional data to be utilized in advertisement capture processor 6.⁸¹ (*emphasis added*)

If the incoming signal is an FM signal, the input device detector/decoder 16 decodes the FM signal in Step S10. If the input device detector/decoder determines that the incoming signal is not an FM signal, then the input device detector/decoder 16 determines whether the incoming signal is a television type signal in Step S12, and if so, the input device detector/decoder 16 decodes the television signal in Step S14. If the input device detector/decoder 16 determines that the signal is not a television signal, then control is directed back to the beginning of the process to continue monitoring for the presence of the incoming signal by the input device detector/decoder 16.⁸²

As Appellants stated in a previous Response, *Tognazzini* does not teach an “acoustical” coupling. The only signal that might be in the audio range would be that in the AM signal. However, it is not clear what portion of the audible range this signal would be in.⁸³

Appellants and the Examiner agree that *Tognazzini* does not disclose control information sent to the user computer for controlling whether to display the advertising information. The third step of Claim 1 requires a computer program operable on said computer and responsive to said audio signal output from said receiver of said broadcast source to allow said computer program to be controlled by the received control information for output of the advertising content. The *Tognazzini* disclosure sets forth in numerous locations that there is no “control” of the program *per se* without the user initiating a request by pushing a button.⁸⁴ As such, the user controls what advertisement content is displayed on a computer as opposed to the claims of the instant application where the advertiser controls what advertisement content is displayed on a computer.

⁸¹ See *Tognazzini* Col 5, lines 55-65.

⁸² See *Tognazzini* Col 7, lines 50-63.

⁸³ See Response dated March 25, 2004, pages 6 and 7.

⁸⁴ See *Tognazzini* Col 3, lines 50-63; Col 4, lines 2-8; Col 5, lines 37-40; Col 6, lines 1-60; Col 7, lines 64 – Col 8, line 65.

Furthermore, *Tognazzini* contains no suggestion or teaching that control information for the purpose of controlling whether to display the advertising information would be useful for its intended purpose. *Tognazzini* specifically teaches user control through a scroll memory and user command buttons.⁸⁵ The purpose of *Tognazzini* is to enable a user the ability to access advertiser information at a time subsequent to when it was broadcast. The user selects what advertisements the user wishes to view or access.

Additionally, the claims of the instant application require the program to further comprise a program for accessing the advertising information coupled from said receiver of said broadcast source, a decoder for decoding the received advertising information encoded in said audio signal to provide decoded advertising content and decoded control information, and means for launching said decoded advertising content on said display of said computer under the control of said decoded control information *substantially at the time of reception* of the advertisement information. *Tognazzini* discloses that its purpose is to enable user access to advertising information at a later time. The specific disclosure sets forth:

To achieve these features and advantages, the present invention provides a computer architecture used to enable radio listeners and television viewers to obtain advertising information *at a time subsequent* to when such information is broadcast to the listener/viewer.⁸⁶ (*emphasis added*)

Thus, to apply *Tognazzini* for the purpose of obviating Claim 1 in the instant application, the Examiner must show that *Tognazzini* contains a teaching, suggestion, or motivation to solve the problem faced by Appellants' present claims. *Tognazzini* must suggest that, at the time of the invention, a problem existed that could be solved by incorporating both advertising content and control information in advertising information embedded in an audio signal received through an acoustical link could be utilized in the *Tognazzini*-system for the purpose of allowing the advertiser to control whether advertisement information is displayed on a computer. *Tognazzini* does not contain any such teaching, suggestion or motivation. In fact, the statement "at a time subsequent" actually teaches away from the limitation "substantially at the time of reception," in

⁸⁵ See *Tognazzini* Figure 2, Col 6, lines 1-60.

⁸⁶ See *Tognazzini* Col 3, lines 35-39.

accordance with the principles set forth in *United States v. Adams*,⁸⁷ “when the prior art teaches away from combining certain elements, discovery of a successful means of combining them is more likely to be non obvious.”⁸⁸

b. Discussion of U.S. Patent No. 6,029,045 to Picco et al.

The Examiner has provided *Picco* to cure the deficiencies in *Tognazzini*. Specifically, the Examiner has relied on *Picco*, “[to send] advertising information with the control information in the broadcast wherein the control information controls whether to display that advertising information.”⁸⁹ The Examiner further states:

"(13) Thus, in addition to the conventional live feeds and local content, the combiner may combine a plurality of user-specific information in the satellite signal including a private data identification code that permits the set-top box in accordance with the invention to locate the private data being transmitted through the satellite in accordance with the invention. The private data may include the compressed local content, as described above, which may be transmitted to each set-top box using several different transmission strategies, as described below. This local content may not be transmitted in real-time in that the local content is not immediately viewed by the user of the set-top box since the set-top box inserts the local content into the satellite signals as needed. As described above, the private data may also include command and control data that instructs the processor within the set-top box how to insert the local content into the satellite data streams" (col 8, lines 21-40).

Picco further discloses that the local content can be advertisements:

"(8) For example, a user may be looking to buy a new car, and may select the preferences that are set so that the set-top box for the user stores only local content (i.e., advertisements) about automobiles. Then, when a local content space within the compressed digital data stream is identified, an automobile advertisement is shown to the user. Now, the uplink facility 102 in accordance with the invention will be described in more detail" (col 6, lines 34-41).

⁸⁷ See *United States v. Adams*, 383 U.S. 39, 40 (1966).

⁸⁸ *KSR*, 127 S. Ct at 1740.

⁸⁹ See Final Office Action mailed July 03, 2006, page 3; Office Action mailed April 07, 2005, page 3.

Picco further discloses utilizing a variety of communication methods, including broadcasting audio content:

"(2) This invention relates generally to a system and method for inserting individualized data content into a compressed digital data stream and in particular to a system and method for inserting individualized data content into a compressed digital video and audio data stream being transmitted to a plurality of viewers by any type of broadcast system, such as a satellite-based, cable-based, wireless cable (i.e., microwave) or terrestrial broadcast system" (col 1, lines 5-12).

Picco further discloses that a computer network can be utilized, the Internet and computers:

"In particular, the system may be used with a cable-based digital data broadcast system, a satellite or cable-based analog data broadcast system, a digital data broadcast system that uses a computer network, such as the Internet, a wireless cable (i.e., microwave) broadcast system, or a terrestrial broadcast system to communicate the digital data to the viewer" (col 14, lines 57-67).

"Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to add Picco's advertiser control of advertising information sent with advertising information to Tognazzini's advertiser provided information. One would have been motivated to do this in order to allow the advertiser better control of advertisement display in order to more effectively reach a user."⁹⁰

The *Picco* reference discloses a system for communicating a programming data stream and a data stream containing pieces of local content. A set-top box identifies and stores the local content based on a predetermined criteria. The set-top box inserts the local content into the programming data stream based on a plurality of predetermined criteria.⁹¹ An uplink facility inserts local content, such as advertisements, into a broadcast.⁹² The set-top box is operable to store a portion of local content data transmitted. Based on pre-selected criteria, the set-top box then inserts the stored local content into the compressed digital data stream.⁹³ The local content may be sent by a trickle download technique, during a predetermined time interval or nightly.⁹⁴

⁹⁰ See Final Office Action mailed July 03, 2006, pages 4 and 5; Office Action mailed April 07, 2005, pages 3 – 5.

⁹¹ See *Picco* Abstract.

⁹² See *Picco* Col 6, lines 1-16.

⁹³ See *Picco* Col 6, lines 23-29.

⁹⁴ See *Picco* Col 9, lines 1-27.

Despite the method of transmission used, the set-top box stores the local content before insertion into the compressed data stream or viewing by the user.⁹⁵ A scheduler transmits control data to the set-top box. The control data instructs a processor in the set-top box how to insert the local content into the satellite data stream.⁹⁶

In its Response, Appellants stated “the content must be stored locally before it becomes local content and then, at a later time, the local content can be inserted into the digital data stream.”⁹⁷ The Examiner has cited language in Col. 8 to provide a teaching for only control information sent in the digital broadcast.⁹⁸ The specific disclosure sets forth as follows:

Thus, in addition to the conventional live feeds and local content, the combiner may combine a plurality of user-specific information in the satellite signal including a private data identification code that permits the set-top box in accordance with the invention to locate the private data being transmitted through the satellite in accordance with the invention. The private data may include the compressed local content as described above, which may be transmitted to each set-top box using several different transmission strategies, as describe below. This local content may not be transmitted in real-time in that the local content is not immediately viewed by a user of the set-top box since the set-top box inserts the local content into the satellite signals as needed. As described above, the private data may also include command and control data that instructs the processor with the set-top box how to insert the local content into the satellite data streams.⁹⁹

This command and control data instructs the processor to insert the local content into the satellite data stream. Appellants previously noted that it is not a command that is sent to insert the content instantaneously but, rather, the command directs it “how to” insert such previously received and stored data.¹⁰⁰ There is no disclosure that would result in the advertising information comprised of content and control information being transmitted to a location, such as a processor, wherein, at substantially the same time that it was received, it would be displayed. The Examiner considers that *Picco* discloses the user-specific information in the satellite signal

⁹⁵ See *Picco* Col 9, lines 40-48.

⁹⁶ See *Picco* Col. 8, lines 29-39.

⁹⁷ See Response dated October 07, 2005, page 7.

⁹⁸ See Final Office Action mailed July 03, 2006 at page 3; Office Action mailed April 07, 2005 at page 3.

⁹⁹ See *Picco* Col 8, lines 23-39.

¹⁰⁰ See Response dated October 07, 2005 at page 7.

that can include a data identification code, and also that the private data can include command and control data in addition to local content. The Examiner states in his Response to Arguments section:

Picco discloses that live feeds, control information and local information can be combined in a real-time broadcast (Fig. 5, and below citation):

FIG. 5 is a block diagram of the live feeds, local content and commands being multiplexed together in accordance with the invention” (col 4, lines 25-29).

Picco further discloses that the content that is live feed/real-time broadcast can be advertisements:

“(3) . . . At the head-end station 32, the operator of the satellite-based system 30 may insert content, such as advertisements, into the satellite signal. . . this content is the same for all of the households that receive the satellite signal (col 5, lines 17-25).

Picco further discloses that the control information can be control information for the broadcast content that the control information was broadcast at the same time with and that the broadcast content can be a live/real-time broadcast content:

“(20) Another common feature of the various techniques for downloading the local content and private data in accordance with the invention is the manner in which the command and control data is downloaded to the set-top box. In particular, the command and control data may be downloaded in real-time with the programming data streams (i.e., the live feeds signals) so that the set-top box may determine, based on the command and control data, where to insert the stored local content as well as what local content should be inserted into a particular programming data stream. This information may include the content profile data which is described above. The command and control data may also include a data structure containing data about the characteristics of a particular household which may be used by the set-top box to determine which local content is actually going to be stored by the set-top box. This user characteristics data is not downloaded in real-time and may be generated based on the data about the household that was received by the agent 150 which was described above. For example, the control data may indicate that an automobile advertisement should be inserted in a particular spot

in the programming data stream. . .” (col 9, line 60-col 10, line 15).¹⁰¹

Note that this citation preceding discloses that the control information is broadcast with a live/real-time broadcast content such as where other content is to be placed into the live broadcast or what type of content can be placed into the live broadcast.¹⁰² (emphasis original)

However, *Picco* does not disclose the advertising and control information sent in conjunction with each other such that the advertising information can be displayed at *substantially the same time* that the control information was received.¹⁰³ Appellants respectfully submit that the cited text does not disclose a real-time transmission of a signal containing both advertising content and a control signal. The “live feeds” referenced in the above cited text, refer to the programming data streams to which the stored local content will be added. *Picco* discloses that the local content is downloaded over the satellite signal for insertion at a *later time*. As such, the local content and private data multiplexed with the live feeds is local content that was previously stored. The specific disclosure in *Picco* sets forth as follows:

FIG. 5 is a block diagram of the live feeds 106, the local content streams 108 and various other signals being multiplexed by the multiplexer 140 into a digital data stream that is then transmitted to the user. In addition to the conventional live feeds 106, a program guide 154 and program specific information (PSI) 156, such as the PAT and the PMT, the system in accordance with the invention also multiplexes the local content 108, and a command signal 158, as described above, into the signal. Now, the different techniques for downloading the private data over the satellite system in accordance with the invention will be described.

The private data may be downloaded to each set-top box by a trickle, i.e., background, download technique, a nightly download technique or a dual receiver technique. The trickle technique takes advantage of the fact that the entire bandwidth of the satellite is not

¹⁰¹ It is important to note that the Examiner did not continue the quotation to include: “. . . and then the user characteristics data may indicate which piece of local content already stored in the set-top box will actually be inserted into the programming data stream.” (See *Picco*, column 10, lines 15-18). This indicates that the advertising content was previously received and later displayed in conjunction with control information not received with that advertising content; such that no teaching or suggestion exists in *Picco* for the concept of displaying advertising content received with control information at substantially the same time as reception of both.

¹⁰² See Final Office Action mailed July 03, 2006 at pages 10-12.

¹⁰³ See Response dated May 30, 2006, page 6.

utilized at all times and the unused bandwidth may be used to download the private data and local content as shown in FIG. 6. The trickle technique may be slow since only the unused bandwidth in a particular satellite transponder is being used.

FIG. 6 is a diagram of a graph 160 showing the amount of data being transmitted over a particular satellite channel over a predetermined time interval. A maximum capacity 162 of the satellite channel is shown by the dotted line at the top of the graph. As shown, the amount of programming data being transmitted over the satellite channel not being used for programming data may be utilized to slowly download the private data, which includes the local content data, to the set-top box. Thus, between times t_1 and t_2 , a larger amount of local content may be downloaded to the set-top box as opposed to the time period between times t_3 and t_4 when less local content may be downloaded to the set-top box. Thus, in accordance with this technique, as spare bandwidth over a satellite channel is available, the local content data may be downloaded to the set-top box.

The nightly download technique downloads all of the private data to the set-top box each night while the set-top box is probably not being used for viewing television. This technique may be faster than the trickle since the private data may use an entire channel of the satellite to download the private data. The separate receiver technique uses a set-top box in accordance with the invention that has two receivers, as described below with reference to FIG. 8 so that the private data and local content may be downloaded to the set-top box at any time over a completely separate channel from any of the normal television stations which permits on-demand local content to be downloaded.¹⁰⁴

Therefore, *Picco* teaches away from a concept of advertising information comprised of content and control information being transmitted to a location, such as a processor, wherein, at substantially the same time that it was received, the advertising information would be displayed. *Picco* teaches that the content must be extracted for a particular location and stored. The local content may be sent by a trickle download technique, during a predetermined time interval or over a separate channel. Regardless of the technique used, the system must store the local data prior to insertion into a program or viewing by a user. This is set forth as follows:

Each of the private data downloading techniques have common features. First, for all of the techniques, *the local content*

¹⁰⁴ See *Picco* Col 8, line 56 – Col 9, line 37.

is downloaded before insertion or viewing by the user. Thus, the local content, in accordance with the invention, is downloaded to the set-top box in the background (i.e., un-noticed by the user) and then a particular piece of local content may be used once the entire piece of local content resides on a memory or a disk in the set-top box.¹⁰⁵ (emphasis added).

Thus, the control information would only be directed to previously stored content. In fact, it appears that the instructions merely tell it when to insert it. This would be a function of a point in time in a particular program.

The Examiner identified a particular element in the prior art, that being the limitation of control information downloaded with a broadcast signal. *Kahn* stated that “a mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole.”¹⁰⁶ Rather than concentrate on this element, the Examiner is required to articulate the basis on which the Examiner concludes that it would have been obvious to make the claimed invention, i.e., why one of ordinary skill in the art would have been motivated to select the references and to combine them in order to render the claimed invention obvious. The Examiner’s indication that control data exists does not show the existence of such teaching. Thus, Appellants believe the Examiner has not met a *prima facie* case by stating, “it would have been obvious to one of ordinary skill in the art at the time of the invention was made to add Picco’s advertiser control of advertising information sent with advertising information to Tognazzini’s advertiser provided information. One would have been motivated to do this in order to allow the advertiser better control of advertisement display in order to more effectively reach a user.”¹⁰⁷

Picco contains no teaching, suggestion, or motivation to provide “transmitting advertising information, comprising both advertising content and control information, to a remote location for decoding by a user’s computer which user computer would then use the advertising content and the control information to effect display of the advertising content at the user location at substantially the same time as the advertising information was received.” Due to the fact that any local content must be downloaded prior to insertion into the satellite signal or viewing by a user,

¹⁰⁵ See *Picco* Col 9, lines 40-48.

¹⁰⁶ *Kahn*, 441 F.3d at 986.

¹⁰⁷ See Final Office Action mailed July 03, 2006, pages 4 and 5.

reliance on this one particular aspect is insufficient to show any motivation, suggestion, or teaching that would lead one skilled in the art at the time of the invention to combine the teachings of *Picco* with *Tognazzini* to allow one with the teaching of *Tognazzini* in front of them to provide advertisement information that is comprised of both advertising content and control information. Further, the Examiner has provided no guidance as to why *Tognazzini*, who states the information be sent prior in time to when it is accessed, which makes it difficult to determine why one skilled in the art would be inclined or motivated to send control and content information at the same time for display. *Tognazzini* contemplates only displaying content under a user's control *after* the advertising content has been received and stored.

c. Discussion of U.S. Patent No. 5,887,243 to *Harvey et al.*

The *Harvey* reference discloses a system of controlling communications by sending control signals to a microcomputer to generate user-specific information.¹⁰⁸ The control signals are embedded within a broadcast signal.¹⁰⁹ An example is illustrated whereby two control signals are sent to the microprocessor. The first signal is an invoking broadcast control signal, the second is a program instruction set. The control signals enable stored advertiser information to be added to the broadcast signal.¹¹⁰

The Examiner has provided *Harvey* to cure the deficiencies in *Tognazzini* and *Picco*. Specifically, the Examiner has relied on *Harvey*, “[to disclose] that the control information is broadcast with a live/real-time broadcast content and that the control information can include control information relevant to the broadcast content.”¹¹¹ The Examiner further states:

“Hence, the combination of the prior art discloses and renders obvious advertising and control information which are sent in conjunction with each other such that advertising information can be displayed at substantially the same time that the control information was received or displaying the broadcast information at substantially the same time as the control information was received”¹¹²

¹⁰⁸ See *Harvey* Col 6, line 35 – Col 7, line 67.

¹⁰⁹ See *Harvey* Col 7, lines 60-67.

¹¹⁰ See *Harvey* Col 13, lines 10-65.

¹¹¹ See Final Office Action mailed July 03, 2006, page 5 and 12; Office Action mailed November 30, 2005, page 5.

¹¹² See Final Office Action mailed July 03, 2006, pages 13-14.

The Examiner cites the following sections as evidence of this teaching:

[Claim] 37 The method of Claim 21, wherein said processor processes a datum designating at least one specific channel of one of a multi-channel cable and a broadcast signal, said method further comprising the step of controlling a video recorder/player to one of record and play one of video and audio contained in said at least one specific channel designated by said processed datum.

(911) In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls, in turn, a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.

(801) So far this disclosure has described an intermediate transmission station that transmits conventional television programming; however, the intermediate station automating concepts of the present invention apply to all forms of electronically transmitted programming. The station of FIG. 6 can process and transmit radio programming in the fashions of the above television programming by adding radio transmission and audio recorder/player means, each with associated radio decoder means as shown in FIG. 2B, wherever television means are shown in FIG. 6, all with similar control means to that shown in FIG. 6 and by processing radio programming with appropriately embedded signals according to the same processing and transmitting methods described above. Likewise, said station can transmit broadcast print and data communications programming by adding appropriate transmission and recorder/player means and decoder/detector means with control means and using the same processing and transmitting methods. This example has described methods at a multi-channel intermediate transmission station; the methods are also applicable in a station that transmits only a single channel of television, radio, broadcast print or data.” (col 179, lines 15-39).¹¹³

The Examiner further states that *Harvey* “discloses that the content and control information that is broadcast can be for content and for control information such as recording the content that is broadcast.”¹¹⁴

¹¹³ See Final Office Action mailed July 03, 2006, at pages 12-13.

¹¹⁴ See Final Office Action mailed July 03, 2006, at page 13.

Appellants submit that the cited text of Claim 34 of *Harvey* does not illustrate advertising information comprising advertising content and control content. A datum selects a specific channel. That specific channel is then either displayed or broadcast. However, *Harvey* contains no disclosure that the datum is contained within that specific channel. As Appellants previously stated; “this control signal must be received on a different channel than the advertising information, and, therefore, this information cannot be transmitted in the same signal.”¹¹⁵

Furthermore, *Harvey* discloses, as part of the example #10 cited by the Examiner¹¹⁶, that the system stores the content prior to the control signal being sent. The specific disclosure, with text cited by the Examiner, is as follows:

In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls, in turn, a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations.

The station of FIG. 6 is one intermediate transmission station controlled by said studio. The station of FIG. 6 receives said network transmission at receiver, 53, and retransmits said transmission immediately via modulator, 83.

The program unit Q of example #10 is identical to the program unit Q of example #9, and each intermediate transmission station must generate transmit its own station specific program instruction set and data module set information that contains its own station specific formula-and-item-of-this-transmission information.

Prior to a particular early time, complete local-formula-and-item information is inputted to and caused to be recorded at the computer, 73, of each controlled intermediate transmission station in such a way that each computer, 73, contains complete information relevant to the particular discounts and specials in effect at the particular markets in the vicinity of said station and at the particular time of the network transmission of Q.¹¹⁷ (emphasis added).

¹¹⁵ See Response dated May 30, 2006 at page 7.

¹¹⁶ See Final Office Action mailed July 03, 2006 at page 12.

¹¹⁷ See *Harvey* Col 197, line 56 – Col 198, line 12.

The Examiner concludes that “it would have been obvious to one having ordinary skill in the art at the time the invention was made that Tognazzini's display of advertisement information related to broadcasts can be displayed in real time and control information can be utilized in real time. One would have been motivated to do this in order to better utilize broadcast and computer medium for presenting advertising or information of interest to the user.”¹¹⁸ However, the Examiner has ignored the language that is set forth in *Tognazzini* that the advertising information is displayed “subsequent” to the time it is received under the control of the user. Thus, how can such a system operate in a real time mode?

As such, Appellants submit that *Harvey* teaches a control signal that controls information that is stored previously at the destination computer. Furthermore, the Examiner has provided no support as to “why” one skilled in the art would combine the control signal of *Harvey* with the control signal of *Picco* and further combine with the advertising content of *Tognazzini*. Due to the fact that both *Harvey* and *Picco* teach that the advertising content must be stored prior to insertion into the broadcast programming, reliance on this one particular aspect is insufficient to show any motivation, suggestion, or teaching that would lead one skilled in the art at the time of the invention to combine the teachings of *Harvey* with the teachings of *Picco* and *Tognazzini*.

3. Conclusion – TSM Test.

Although the recent *KSR* Supreme Court case has indicated that the teaching-suggestion-motivation (TSM) test is not a rigid test, it is still considered to be a factor. Under this test, there must be some type of teaching in each of the references for combination as well as some kind of suggestion. There also must be some motivation to combine the three references. If this test alone were utilized, the question would be whether there is any teaching in *Tognazzini*, *Picco* and *Harvey* that would suggest to one skilled in the art to combine the three references or is there any motivation to so combine.

Tognazzini is a reference that provides a system that allows for capture of advertisement information which is transmitted in a broadcast program. This advertisement information is contained in an AM signal, an FM signal or a television signal. However, there is no “acoustical” coupling nor is there the transmitting of advertising information comprising both

¹¹⁸ See Final Office Action mailed July 03, 2006 at page 7.

advertisement content and control content. As such, all that is disclosed in *Tognazzini* is the content which, upon detection thereof, indicates that advertisement content was transmitted, which advertisement content is then extracted from the transmission and stored for “subsequent” display, based on the user’s preferences. *Tognazzini* contains no suggestion, teaching or motivation that control information for the purpose of an advertiser controlling whether to display the advertising information on a user display could be useful for its intended purpose. Furthermore, the *Tognazzini* reference discloses a scroll type memory and advertiser memory that is controlled by user command buttons.

Picco is a reference directed toward the concept of transmitting to set-top boxes broadcast information including local content data, such as advertisements, for storage. The local content is later inserted into a data stream. *Picco* specifically teaches that the local content is stored prior to insertion or viewing. The claims require that the advertising information comprise both advertising content and control content. The claims further require that the display of the computer is under the control of the control information “substantially” at the time of reception of the advertisement information. Thus, *Picco* contains no teaching therein for advertisement information comprising both advertising content and control content such that the advertising content can be displayed at substantially the same time that the advertisement information was received.

Harvey is a reference that describes a system wherein control information is transmitted separate from any advertising information. The control information controls a microcomputer. The control information can be two signals contained in a live feed of a broadcast. However, the advertising content is stored prior to the transmission of the control information. Therefore, *Harvey* contains no teaching therein for advertisement information comprising both advertising content and control content such that the advertising content can be displayed at substantially the same time that the advertisement information was received.

Therefore, no reason, motivation or suggestion exists to combine *Tognazzini* with *Picco* and *Harvey*. *Tognazzini* has no need to use the control information in the systems of *Picco* and *Harvey*, as the *Tognazzini* system provides control of advertising display by the user to allow the user to access the advertiser information at a time that is convenient for the user. Since the

advertising content in *Picco* and *Harvey* must be stored in the computer prior to insertion or viewing, as well as in the system of *Tognazzini*, the question is “Why would one skilled in the art want to use control information for the purpose of allowing an advertiser control of a display for a system designed to allow the user to selectively access advertiser information?” As such, there is no motivation or suggestion that would in any way lead one skilled in the art to combine such.

Thus, the *Picco* and *Harvey* references fail to cure the deficiencies in *Tognazzini* in that there is no disclosure of transmitting advertising information, comprising both advertising content and control information, to a remote location for decoding by a user’s computer which user computer would then use the advertising content and the control information to effect display of the advertising content at the user location at substantially the same time as the advertising information was received.

Based on the TSM test, the Examiner’s position is conclusory. The Examiner states that the combination of *Tognazzini*, *Picco* and *Harvey* would “provide a display of advertising information related to broadcasts that can be displayed in real-time and control information can be utilized in real-time to better utilize broadcast and computer medium for presenting of advertising or information of interest to the user.” However, the Examiner has provided no articulated teaching how this combination would provide advertising information comprising “both advertising content and control information, wherein the advertising content is displayed on a display of a computer under the control of the control information substantially at the time of reception of the advertisement information.”¹¹⁹ None of these references, taken singularly or in combination, disclose the advertising and control information which are sent in conjunction with each other such that the advertising information can be displayed at substantially the same time that the control information was received.

4. KSR Test:

The recent *KSR* case, although not fully analyzed as to its impact on obviousness type rejections under 35 U.S.C. § 103, seems to indicate that the test is that “if a person of ordinary skill can not implement a *predictable variation*, §103 likely bars its patentability.”¹²⁰ The

¹¹⁹ *KSR*, 127 S. Ct. at page 1741 citing *Kahn*.

¹²⁰ *KSR*, 127 S. Ct. at page 1740.

question would be whether *Tognazzini* could be varied in a predictable manner under this dicta to utilize advertising information comprising both advertisement content and control information to display advertising information on a display of a computer under the control of the control information substantially at the time of reception of the advertising information. *Tognazzini* would receive no benefit in having control content such that an advertiser at the transmitting end of the broadcast station can control whether an advertisement content is displayed on a computer. In Claim 1, the purpose of the advertising information comprising both advertisement content and control information is such that the control information is used to output the advertisement content to a computer display. If control information were used in the *Tognazzini* system, there is no indication that the control information would be used to provide the advertiser the ability to control whether advertising content is displayed on a computer at substantially the same time as it was received. As such, there is no predictable variation of *Tognazzini* that would lead one skilled in the art to utilize the *Picco* control signal or *Harvey* real-time control signaling. When work is available in one field of endeavor, i.e., providing advertising information for display on a user computer, there is no design incentive or other market force that would prompt a predictable variation of the *Tognazzini* reference to utilize control information for a purpose that is not useful or envisioned in *Tognazzini*. In summary, Appellants submit that the Examiner has failed to provide a *prima facie* case as to why the *Tognazzini*, *Picco* and *Harvey* references, in combination, obviate Appellant's present inventive concept, as defined by claims 1-7 and 9-14

D. Dependent Claims 5, 7, 9 and 13 as rejected by the combination of *Tognazzini*, *Picco* and *Harvey*.

Claims 5, 7 and 9 depend from and further limit Claim 1. These dependent claims are allowable for at least the same reasons as the claim from which they depend, as discussed above.

E. Independent Claim 10 as rejected by the combination of *Tognazzini*, *Picco* and *Harvey*.

Independent Claim 10 is directed to a method for launching an advertisement on a computer comprising the steps of providing a computer having an audio input interface responsive to an audio signal output from a broadcast receiver of a broadcast source and a display coupled to the computer; receiving the *audio signal output having advertising information encoded therein at the audio input interface that is comprised of both advertising content and*

control information and decoding the advertising information for processing by the computer to provide decoded advertising content and decoded control information; initiating execution of a computer program on the computer responsive to the audio signal having the encoded control and advertising information by the steps of: interpreting the decoded received advertising information received during the receiving step to determine if the decoded advertising content is to be displayed based upon the decoded control information, and launching a display of the decoded advertising content upon the display wherein the decoded control information is determined to indicate such substantially at the time of reception of the advertising information.

Independent Claim 10 contains limitations directed toward “advertising information comprising both advertisement content and control information” similar to the limitation found in Claim 1. Also as found in Claim 1, independent Claim 10 additionally contains the limitation “launching a display of the decoded advertising content upon the display wherein the decoded control information is determined to indicate such substantially at the time of reception of the advertising information”. Therefore, Independent Claim 10 is allowable for at least the same reasons as Claim 1, as discussed above.

F. Dependent Claims 11 and 13 as rejected by the combination of *Tognazzini, Picco and Harvey*.

Claim 11 and 13 depend from and further limit Claim 10. These dependent claims are allowable for at least the same reasons as the claim from which they depend, as discussed above.

G. Dependent Claim 2, 3, 4, 6, 12 and 14 as rejected by the combination of *Tognazzini, Picco, Harvey and McKiel*.

On Page 8 of the Final Office Action, the Examiner maintains the 35 U.S.C. § 103(a) rejection of dependent claims 2, 3, 4, 6, 12, and 14. The Examiner states:

Claim 2, 3, 12: Tognazzini and Picco discloses the system of claim 1.

Tognazzini further discloses that said audio input interface comprises:
a circuit for converting said audio signal output coupled from said receiver of said broadcast source into a form for processing by said computer (col 3, line 63-col 4, line 2; col 5, lines 25-35; col 6, lines 1-10).

Tognazzini does not explicitly disclose that the form is digital.

However, McKiel discloses converting an audio signal into digital form (col 4, lines 25-33).

McKiel further discloses an audio circuit having an input coupled to a microphone and an output (Fig. 1), and an A/D converter coupled to said output wherein an output of said A/D converter is coupled to a system bus of said computer (col 4, lines 25-33).¹²¹ (*sic*)

The Examiner concludes that “it would have been obvious to one having ordinary skill in the art at the time the invention was made to add *McKiel*’s analog to digital converter to *Tognazzini*’s computer that receives an audio signal’s [sic] analyzes, processes it, and performs computer functions and analysis on it. One would have been motivated to do this because a computer can manipulate data more effectively when the data is in digital form that a computer needs to perform functions with.”¹²²

McKiel discloses a system for detecting vocal utterances to vary the position of a cursor on a computer.¹²³ The system uses a microphone to detect repeatable sounds from a human user.¹²⁴ The sounds of the user control the position of a cursor on a computer.¹²⁵

Appellants previously commented that *McKiel* does not disclose or suggest the acoustical coupling of a computer to a television broadcast.¹²⁶ The claims of the instant application require that the broadcast source be acoustically coupled to the audio input. *McKiel* teaches that the pitch of a human voice can be used to control a computer program.¹²⁷ There is no motivation to combine *McKiel* with the combination of *Tognazzini*, *Picco* and *Harvey*. Furthermore, the Examiner has provided no articulated reasoning with a rational underpinning “why” one skilled in the art would combine the *McKiel* system using the human voice to initiate execution of a program with the advertising system of *Tognazzini*. Using KSR, if a human voice were used in the *Tognazzini* system, there is no indication that the human voice would initiate a program

¹²¹ See Final Office Action mailed July 3, 2006, pages 8 and 9.

¹²² See Final Office Action mailed July 3, 2006, page 9.

¹²³ See *McKiel* Col 1, line 54 – Col 2, line 5.

¹²⁴ See *McKiel* Col 3, lines 5-10.

¹²⁵ See *McKiel* Col 3, lines 5-10.

¹²⁶ See Response dated March 25, 2004, page 7.

¹²⁷ See *McKiel* Col 3, line 42 – Col 4, line 13.

whereby advertising content broadcast at the same time with the human voice or sound would enable the advertising content to control the display of a user such that the advertising content is displayed on the user display at substantially the same time as it is received. There is no predictable variation of *Tognazzini* that would lead one skilled in the art to utilize *McKiel* human voice control.

Additionally, Claims 2, 3, 4 and 6 depend from and further limit Claim 1. Claims 12 and 14 depend from and further limit Claim 10. These dependent claims are allowable for at least the same reasons as the claims from which they depend, as discussed above.

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VIII. Conclusion

In Summary, these references fail to provide a suggestion, motivation, or teaching for the combinations because the text fails to illustrate “why” one skilled in the art would combine the references in the particular manner required nor do these references, in combination, suggest that one skilled in the art could implement a predictable variation of these references so as to arrive at an obviating combination. Instead, the Examiner simply identifies particular components for each reference, combines them in a specific manner required by Appellant’s claimed invention, and then states that it would be obvious to one skilled in the art to do so. This is clearly hindsight based reasoning that contravenes the standards imposed by both the MPEP and the Federal Circuit. Appellant respectfully submits that the cited combinations are improper for the reasons detailed above and requests the rejections under § 103 be withdrawn.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented): A system for launching an advertisement on a computer, comprising:

a computer having an audio input interface and a display;

an audio output acoustically coupled from a broadcast receiver of a broadcast source to said audio input interface for providing an audio signal having encoded therein advertisement information that is comprised of both advertising content and control information;

a computer program operable on said computer and responsive to said audio signal output from said receiver of said broadcast source to allow said computer program to be controlled by the received control information for output of the advertising content, said program comprising:

a program for accessing the advertising information coupled from said receiver of said broadcast source,

a decoder for decoding the received advertising information encoded in said audio signal to provide decoded advertising content and decoded control information, and

means for launching said decoded advertising content on said display of said computer under the control of said decoded control information substantially at the time of reception of the advertisement information.

2. (Previously Presented) The system of Claim 1, wherein said audio input interface comprises:

a circuit for converting said audio signal output coupled from said receiver of said broadcast source into digital form for processing by said computer.

3. (Original): The system of Claim 2, wherein said circuit comprises:
an audio circuit having an input coupled to a microphone and an output; and
an A/D converter coupled to said output wherein an output of said A/D converter is coupled to a system bus of said computer.

4. (Previously Presented) The system of Claim 1, wherein said audio signal comprises:

an advertisement coupled with a sound effect selected from the group consisting of clapping, clicking, whistling, audible tones, subaudible tones, superaudible tones or a combination thereof.

5. (Original): The system of Claim 1, wherein said audio output comprises:
a broadcast or recorded program including said advertisement encoded in an audio component of said program.

6. (Original): The system of Claim 1, wherein said audio output comprises:
an audible signal for initiating execution by said program in said computer.

7. (Previously Presented): The system of Claim 1, wherein said advertisement information includes:

information selected from the group consisting of product identity, product description, manufacturer identity, advertising messages or program execution commands.

8. (Canceled)

9. (Original): The system of Claim 8, wherein said means for launching comprises:

means for coupling said computer to said display.

10. (Previously Presented): A method for launching an advertisement on a computer comprising the steps of:

providing a computer having an audio input interface responsive to an audio signal output from a broadcast receiver of a broadcast source and a display coupled to the computer;

receiving the audio signal output having advertising information encoded therein at the audio input interface that is comprised of both advertising content and control information

and decoding the advertising information for processing by the computer to provide decoded advertising content and decoded control information;

initiating execution of a computer program on the computer responsive to the audio signal having the encoded control and advertising information by the steps of:

interpreting the decoded received advertising information received during the receiving step to determine if the decoded advertising content is to be displayed based upon the decoded control information, and

launching a display of the decoded advertising content upon the display wherein the decoded control information is determined to indicate such substantially at the time of reception of the advertising information.

11. (Previously Presented): The method of Claim 10, wherein the step of providing a computer comprises the steps of:

providing an audio input interface for receiving the audio signal output from the receiver of the broadcast source;

converting the received audio signal to a form readable by the computer; and

transmitting converted audio signal information to the computer.

12. (Previously Presented): The method of Claim 11, wherein the step of providing an audio input interface comprises the steps of:

providing an audio circuit having an input coupled to a microphone and an output; and

coupling an A/D converter between said output of said audio circuit and a system bus of said computer.

13. (Previously Presented): The method of Claim 10, wherein the step of receiving comprises the steps of:

receiving a broadcast or recorded program source having encoded therein advertising information selected from the group consisting of product identity, product description, manufacturer identity, advertising messages or program execution commands.

14. (Previously Presented): The method of Claim 10, wherein said audio signal output comprises:

a sound effect selected from the group consisting of clapping, whistling, audible tones, subaudible tones, superaudible tones or a combination thereof.

15. (Canceled)

EVIDENCE APPENDIX

A. U.S. Patent No. 5,708,478 to Tognazzini found beginning on page 2 of the Office Action dated October 21, 2003, found beginning on page 2 of the Final Office Action dated April 13, 2004, found beginning on page 2 of the Office Action dated August 24, 2004, found beginning on page 2 of the Final Office Action dated April 7, 2005, found beginning on page 2 of the Office Action dated November 30, 2005, and found beginning on page 2 of the Final Office Action dated July 3, 2006.

B. U.S. Patent No. 6,029,045 to Picco found beginning on page 2 of the Office Action dated November 30, 2005, and found beginning on page 2 of the Final Office Action dated July 3, 2006.

C. U.S. Patent No. 5,887,243 to Harvey found beginning on page 2 of the Final Office Action dated July 3, 2006.

D. U.S. Patent No. 5,133,011 to McKiel found beginning on page 2 of the Office Action dated October 21, 2003, found beginning on page 2 of the Final Office Action dated April 13, 2004, found beginning on page 2 of the Office Action dated August 24, 2004, found beginning on page 2 of the Final Office Action dated April 7, 2005, found beginning on page 2 of the Office Action dated November 30, 2005, and found beginning on page 2 of the Final Office Action dated July 3, 2006.

E. *KSR International Co. v. Teleflex Inc., et al.*, 127 S. Ct. 1727 (2007).

RELATED PROCEEDINGS APPENDIX

None.